

## ABSTRACT OF THE DISCLOSURE

A Resolver/Digital (R/D) converter includes an encoder output divider having a DSP generating 14-bit encoded signals A2 and B2 from a timing analysis performed during the first period of 12-bit encoded signal A1. The DSP generates a selection signal output to a multiplexer to select encoded signals A1 and B1 or encoded signals A2 and B2 depending on the rotational speed of the rotor of a resolver. Based on the selection signal, the multiplexer outputs 12-bit encoded signals A1 and B1 when the rotational speed is less than 400 rpm or greater than 1200 rpm, and outputs 14-bit encoded signals A2 and B2 when rotational speed is between 400 rpm and 1200 rpm.